

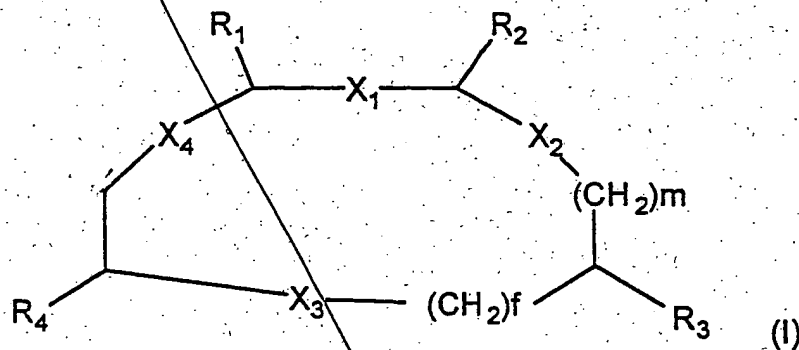
### REMARKS

Please amend the application filed on even date herewith, prior to proceeding with its examination.

### IN THE CLAIMS

Please cancel claims 1, 16, 17 and 18, without prejudice or disclaimer. Please add new claim 20, in lieu of claim 1, as follows:

--20. Monocyclic compounds of general formula (I)



wherein:

$X_1, X_2, X_3, X_4$ , same or different, are a group chosen among: -CONR-, -NRCO-, -CH<sub>2</sub>-NR-, -NR-CH<sub>2</sub>- where R is H, C<sub>1-3</sub> alkyl, benzyl;

f, m, same or different, are a number chosen among 0, 1 and 2;

$R_1$  and  $R_2$ , same or different, represent a group:

$-(CH_2)_r-Ar$  where  $r = 0, 1, 2$  and  $Ar$  is an aromatic group selected from the group consisting of benzene, naphthalene, thiophene, benzothiophene, pyridine, quinoline, indole, furan, benzofuran, thiazole, benzothiazole, imidazole and benzoimidazole, optionally substituted with up to 2 substituents selected from the group consisting of  $C_{1-3}$  alkyl, halo  $C_{1-3}$  alkyl,  $C_{1-3}$  alkyloxy,  $C_{2-4}$  amino-alkyloxy, halogens, OH,  $NH_2$ , CN, and  $NR_6R_7$ , where  $R_6$  and  $R_7$  are the same or different and are H or  $C_{1-3}$  alkyl;

$R_3$  is selected from the group consisting of

$(CH_2)_r-Ar_1$  where  $r = 0, 1, 2$  and  $Ar_1$  is an aromatic compound selected from the group consisting of benzene, naphthalene, thiophene, benzothiophene, pyridine, quinoline, indole, furan, benzofuran, thiazole, benzothiazole, imidazole and benzoimidazole,

optionally substituted with up to 2 substituents selected from the group consisting of  $C_{1-3}$  alkyl, halo  $C_{1-3}$  alkyl,  $C_{1-3}$  alkyloxy, amino-alkyloxy, halogens, OH,  $NH_2$ , and  $NR_6R_7$ , where  $R_6$  and  $R_7$  are the same or different, and are H or  $C_{1-3}$  alkyl,

$R_4$  is a member selected from the group consisting of:

-  $NR_8R_9$ , where  $R_8$  is H or  $C_{1-3}$  alkyl; and

$R_9$  is a methanesulfonyl, tosyl, tetrahydropyranyl, tetrahydrothiopyranyl, optionally mono or disubstituted by oxygen on the S atom, piperidyl optionally substituted on the N-atom by a  $C_{1-3}$  alkyl,  $C_{1-3}$  acyl, aminosulfonyl, methanesulfonyl; or a group  $(CH_2)_g-R_{10}$ , where  $g$  is 1, 2, 3 and  $R_{10}$  is selected from the group consisting of morpholine, furan, CN;

or  $R_8$  and  $R_9$  together with the N atom to which they are linked form a piperazine, optionally substituted on one of its nitrogens by a  $C_{1-3}$  alkyl,  $C_{1-3}$  acyl or methanesulfonyl;

AI  
cont

$-N(R_{11})CO(CH_2)_h-R_{12}$  where  $R_{11}$  is H,  $C_{1-3}$  alkyl;  $h$  is 0,1,2,3; and  $R_{12}$  is selected from the group consisting of morpholine, pyrrolidine optionally substituted with an hydroxy or hydroxymethyl, piperidine optionally substituted with a hydroxy carboxyamido or aminosulfonyl group, piperazine optionally substituted on the N-atom by  $C_{1-3}$  alkyl, triazole, tetrazole, 5-mercapto-tetrazole, furan, thiophene, thiomorpholine optionally mono or di-oxygenated on the S-atom, amino-cyclohexane optionally substituted by an hydroxy group;

-  $COR_{13}$  wherein  $R_{13}$  is a member selected from the group consisting of morpholine and piperazine, optionally substituted by a  $C_{2-6}$  alkyl containing one or more ether or hydroxy groups; as enantiomers or mixture of diastereoisomers, and their pharmaceutically acceptable salts.

Please amend the following claims:

2. (Amended) Compound according to claim [1] 20 wherein:

$f$  is 1

$m$  is 0

A<sup>2</sup>  
 $X_1, X_2, X_3, X_4$ , are the same or different and are [a group] a member selected from the group consisting of  $-CONR-$  and  $NRCO-$ ,

where  $R$  is H or methyl,

$R_1$  and  $R_2$  are the same or different, are:

$-CH_2-Ar$  wherein  $Ar$  is an aromatic group [chosen among] selected from the group consisting of benzene, pyridine, indole, [possibly] optionally substituted with up to two residues, with substituents [chosen among] selected from the group consisting of:

$C_{1-3}$  alkyl [and], halo  $C_{1-3}$  alkyl,  $C_{1-3}$  alkyloxy,  $C_{2-4}$  amino alkyloxy, halogens, OH,  $NH_2$ , CN,  $NR_6R_7$ , where  $R_6$  and  $R_7$ , are the same or different, and are H or  $C_{1-3}$  alkyl;

~~R<sub>3</sub> is -CH<sub>2</sub>-Ar<sub>1</sub>, wherein Ar<sub>1</sub> is an aromatic group selected from the group consisting of: [alfa] ~~alpha~~ naphthyl, beta naphthyl, phenyl, phenyl substituted with up to two residues [chosen among] selected from the group consisting of C<sub>1-3</sub> alkyl, [and] halo C<sub>1-3</sub> alkyl, C<sub>1-3</sub> alkyloxy, halogens, OH, NH<sub>2</sub>[,].~~

[R<sub>4</sub> is as defined in Claim 1]

3. (Amended) Compounds according to claim 2 wherein:

-X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub> are -CON[R]H-,

[R is H]

-R<sub>1</sub> is the lateral chain of tryptophan;

-R<sub>2</sub> is the lateral chain of phenylalanine [possibly] optionally substituted with up to two residues [chosen among] selected from the group consisting of: chlorine, fluorine, CF<sub>3</sub>, OH, CN[; or a group] 3-pyridyl-methyl[; or a group] and 4-pyridyl-methyl;

-R<sub>3</sub> is benzyl.

[and f, m and R<sub>4</sub> are as defined in claim 2]

4. (Amended) Compounds according to claim 3 wherein:

[R, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, f, m are as above defined and:]

R<sub>4</sub> is a group NR<sub>8</sub>R<sub>9</sub> wherein:

R<sub>8</sub> is H or methyl;

R<sub>9</sub> is [a group chosen among:] [:] selected from the group consisting of  
4-tetrahydropyranyl, 4-tetrahydrothiopyranyl, 1-oxo-tetrahydrothiopyran-4-yl, 1,1-dioxo-tetrahydrothiopyran-4-yl, N-methyl-4-piperidinyl, N-metansulfonyl-4-piperidinyl, N-aminosulfonyl-4-piperidinyl,

A2  
cont or R<sub>8</sub> and R<sub>9</sub> together with the N atom to which they are linked represent: N-methyl-piperaziniyl, N-acetyl-piperaziniyl, piperaziniyl, N-methanesulfonyl-piperaziniyl

6. (Amended) Compound according to Claim 3 wherein:

R<sub>4</sub> represents a group NR<sub>8</sub>R<sub>9</sub>, where R<sub>8</sub> is H and R<sub>9</sub> is chosen among: methanesulfonyl, tosyl,

A3 a group (CH<sub>2</sub>)<sub>g</sub>-R<sub>10</sub> wherein g is 1, 2 and R<sub>10</sub> is chosen among: morpholine, furan, CN.

[and f, m, X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>, R, R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are as defined in claim 3]

8. (Amended) Compounds according to claim 3 wherein:

[R4] R<sub>4</sub> is a group - N(R<sub>11</sub>)CO(CH<sub>2</sub>)<sub>h</sub>-R<sub>12</sub> wherein R<sub>11</sub> is H, h is 0 or 1, and [R12] R<sub>12</sub> is [chosen

among:] selected from the group consisting of 1-tetrazolyl, 5-mercapto-tetrazol-1-yl, 1-

A4 triazolyl, furanyl, thiophenyl, morpholine, 4-hydroxy-piperidine, 4-carboxy-amido-piperidine,

3-hydroxy-pyrrolidine, 2-hydroxymethylpyrrolidine, 4-methyl-piperazine, 4-aminosulfonyl-

piperazine, 1-oxo-thiomorpholine, 4-hydroxy-cyclohexan-1-yl-amino.

[and f, m, X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>, R, R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are as defined in claim 3]

10. (Amended) Compounds according to Claim 3 wherein:

A5 [R4] R<sub>4</sub> represents a group COR<sub>13</sub> wherein R<sub>13</sub> is a [group chosen among] member selected from

the group consisting of morpholine and 4-(hydroxyethoxyethyl)piperazine.

[and f, m, X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>, R, R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are as defined in claim 3]

12. (Amended) Pharmaceutical compositions containing as active principle

A6 compounds of general formula (1) according to Claim [1] 20 in combination with pharmaceutically acceptable carriers or excipients.

## IN THE SPECIFICATION

Page 4, line 6, after "alkyl" first occurrence, insert --,--; line 6, delete "and"; delete "haloalkyl" and insert --halo C<sub>1-3</sub> alkyl--.

Page 4, line 10, after "alkyl", insert --,--;

Page 4, line 11, delete "and";

Page 4, line 11, delete "haloalkyl"; insert --halo C<sub>1-3</sub> alkyl--.

Page 5, line 3, delete "-CONR-", insert -- -CONH- --.

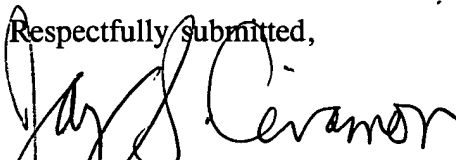
Page 5, line 3, delete "-R is H;"

Please cancel original pages 1 and 1a, copies enclosed, and substitute enclosed new pages 1 and 1a.

REMARKS

It is respectfully requested that the examination proceed on the basis of the amendatory action taken herein and that this amendment be entered prior to calculating the filing fee and according the application a filing date.

Respectfully submitted,



JAY S. CINAMON  
Registration No. 24,156  
Attorney for Applicants

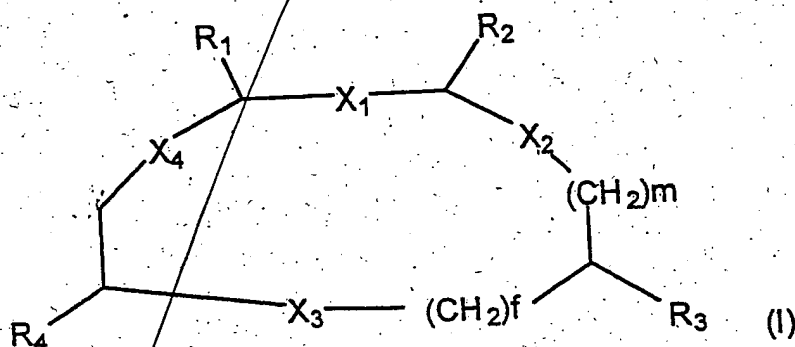
**ABELMAN FRAYNE & SCHWAB**  
**150 East 42nd Street**  
**New York, New York 10017-5612**  
**Tel. (212) 949-9022**  
**Fax (212) 949-9190**

notarbar\20201alt.px

# MONOCYCLIC COMPOUNDS HAVING NK-2 ANTAGONIST ACTION AND COMPOSITIONS CONTAINING THEM

## FIELD OF THE INVENTION

The present invention refers to compound of general formula (I)



wherein:

X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>, same or different, are a group chosen among: -CONR-, -NRCO-, -CH<sub>2</sub>-NR-, -NR-CH<sub>2</sub>- where R is H, C<sub>1-3</sub> alkyl, benzyl;

f, m, same or different, are a number chosen among 0, 1 and 2;

R<sub>1</sub> and R<sub>2</sub>, same or different, are a group:

-(CH<sub>2</sub>)<sub>r</sub>-Ar where r = 0, 1, 2 and Ar is an aromatic group chosen among: benzene, naphthalene, thiophene, benzothiophene, pyridine, quinoline, indole, furan, benzofuran, thiazole, benzothiazole, imidazole, benzoimidazole, possibly substituted with up to 2 substituents chosen



among C<sub>1-3</sub> alkyl, halo C<sub>1-3</sub> alkyl, C<sub>1-3</sub> alkyloxy, amino-alkyloxy, halogens, OH, NH<sub>2</sub>, NR<sub>6</sub>R<sub>7</sub>, where R<sub>6</sub> and R<sub>7</sub> are the same or different, and are H or C<sub>1-3</sub> alkyl,

R<sub>3</sub> is a member selected from the group consisting of:

- (CH<sub>2</sub>)<sub>r</sub>-Ar<sub>1</sub> where r = 0, 1, 2 and Ar<sub>1</sub> is an aromatic group selected from the group consisting of: benzene, naphtalene, thiophene, benzothiophene, pyridine, quinoline, indole, furan, benzofuran, thiazole, benzothiazole, imidazole, benzoimidazole, possibly substituted with up to 2 groups selected from the group consisting of C<sub>1-3</sub> alkyl, halo C<sub>1-3</sub> alkyl, C<sub>1-3</sub> alkyloxy and amino-alkyloxy, halogens, OH, NH<sub>2</sub>, NR<sub>6</sub>R<sub>7</sub>, where R<sub>6</sub> and R<sub>7</sub> are the same or different, and are H or C<sub>1-3</sub> alkyl,

R<sub>4</sub> is a group chosen among: